UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue
Seattle, WA 98101

1 JUN 2006

Reply To
Attn Of: OCE-164

Roy J. Schepens, Manager
United States Department of Energy, Office of River Protection
P.O. Box 450, MSIN H6-60
Richland, WA 99352

Re: Approval of the Toxic Substance Control Act (TSCA) Risk-based Disposal Approval (RBDA) Application for the Mobilization of Single-Shell Tank Solid Waste Using Double-Shell Tank Supernate – Phase II Approval for Tanks 241-C-102, 241-C-104, 241-C-107, 241-C-108 and 241-C-112 and Amended Phase II Approval Conditions for Tanks 241-C-103/C-109

Dear Mr. Schepens:

This letter constitutes approval under the authority of 40 Code of Federal Regulations (CFR) 761.61(c) to manage certain polychlorinated biphenyl (PCB) remediation wastes in conjunction with single-shell tank (SST) retrieval, subject to conditions established below. The rationale of the United States Environmental Protection Agency (EPA) for establishing each of these conditions is contained in the Statement of Basis appearing as Enclosure 2 to this letter. This written decision for a risk-based method for disposal of PCB remediation waste is based on the United States Department of Energy Office of River Protection (Energy) application for a risk-based disposal approval dated November 19, 2004, as well as additional information provided to the EPA in support of this application as documented in the Statement of Basis. This approval constitutes the Phase II approval (as described in EPA's letter of December 9, 2004, from Michael A. Bussell to you and in the Statement of Basis for this approval) of the November 19, 2004, application for retrieval of tanks 241-C-102, 241-C-104, 241-C-107, 241-C-108 and 241-C-112 (C-102 Series). Energy is authorized to conduct only those retrieval activities related to the C-102 Series tanks and tanks 241-S-102, 241-C-103 and 241-C-109 for which Phase II approvals have been issued, and precluded from conducting the remainder of the retrieval activities proposed in the November 19, 2004 application, pending associated Phase II determinations by EPA. This letter also modifies two conditions of the C-103/C-109 Phase II approval, issued August 25, 2005, and updates the C-103/C-109 Phase II RBDA approval by referencing the C-103/C-109 TWRWP, RPP 21895, Rev. 3. Conditions applicable to the C-103/C-109 RBDA approval are reprinted in their entirety in Enclosure 3 for convenience.

Enclosure 1 to this approval documents the administrative record that supports this determination. In granting this approval, EPA finds that the proposed management of PCB remediation wastes for retrieval of wastes from specified single-shell tanks, subject to the conditions below, will not pose an unreasonable risk of injury to health or the environment. Energy shall ensure that activities conducted pursuant to this authorization are in full compliance with conditions of this authorization. The conditions of this approval are enforceable under TSCA and implementing regulations 40 CFR Part 761.61(c). Any actions by Energy which violate the terms and conditions of

this letter may result in administrative, civil, or criminal enforcement by EPA in accordance with Section 16 of TSCA, 15 USC § 2615.

Phase II (Tank-Specific) Conditions – Tanks 241-C-103 and 241-C-109

2) All equipment used for carrying out retrieval activities external to tanks 241-C-103 and 241-C-109 shall comply with the requirements of 40 CFR 265.191 through 196. Tanks 241-C-103 and 241-C-109 proper and any equipment used for retrieval activities internal to these tanks are excluded from this requirement. With respect to compliance with the requirements of 40 CFR 265.196 (response to leaks or spills, and disposition of leaking or unfit-for-use tank systems), Energy shall maintain and conduct retrieval operations according to procedures no less stringent than Sections 4.2.2, and 4.6 of the C-103/C-109 TWRWP, RPP-21895, Rev. 2.

Condition 2 of the August 25, 2005, C-103/C-109 Phase II approval is being modified to correct a typographical error. The original C-103/C-109 approval incorrectly referred to RPP-21895, Rev. 2 as a draft process control plan. The modified condition, appearing here in its entirety, corrects this error.

7) Energy shall maintain and operate a baseline (drywell monitoring) and supplemental (modified static liquid level monitoring/waste material balance) leak detection, monitoring and mitigation (LDMM) system as documented in Section 4.0 of the C-103/C-109 TWRWP, RPP-21895, Rev. 2. With respect to this system, Energy shall maintain and conduct retrieval operations pursuant to procedures consistent with Sections 4.2.1 and 4.6 of the C-103/C-109 TWRWP, RPP 21895, Rev. 2

Condition 7 of the August 25, 2005 C-103/C-109 Phase II approval is being modified to correct a typographical error. The original C-103/C-109 approval incorrectly referred to RPP-21895, Rev. 2 as a draft process control plan. The modified condition, appearing here in its entirety, corrects this error.

Finally, references to the C-103/C-109 TWRWP, RPP 21895 Rev. 2 are changed to refer to Rev. 3. Ecology approved RPP 21895 Rev 3 as a TPA primary document via letter of [date] (Reference 9).

Phase II (Tank-Specific) Conditions – Tanks 241-C-102 Series

1. No later than 45 days prior to the start of retrieval for each of the C-102 Series SSTs, Energy shall provide written documentation to EPA and Ecology contacts listed in Phase I approval Condition 6 of the final receiving DST and the associated DST valve pit supernate/slurry return connection point, and DST return riser. For each C-102 Series tank retrieval (the retrieval SST), the spatial boundaries of this approval shall be the valve pit identified in the documentation required by this condition for supernate retrieved from the corresponding DST, extending to (following the direction of supernate/retrieved slurry flow) the retrieval SST, thence to the connection to the receiving DST return riser for slurry returned from the retrieval SST. The retrieval SST is explicitly included within this boundary. EPA may modify the spatial boundary defined by this condition or the requirements of this approval based on documentation required by this approval condition

as necessary to ensure that activities subject to this approval do not pose an unreasonable risk of injury to human health or the environment.

2. All equipment used for carrying out retrieval activities external to the C-102 Series tanks shall comply with the requirements of 40 CFR 265.191 through 196. The C-102 Series tanks proper and any equipment used for retrieval activities internal to these tanks are excluded from this requirement. With respect to compliance with the requirements of 40 CFR 265.196 (response to leaks or spills, and disposition of leaking or unfit-for-use tank systems), Energy shall maintain and conduct retrieval operations according to procedures no less stringent than Sections 4.2.2, and 4.6 of the C-102 Series TWRWP, RPP-22393, Rev. 3, as approved by Ecology.

3. Energy shall complete a formal waste compatibility assessment of wastes in the C-102 Series tanks according to HNF-SD-QM-OCD-015 and Section 3.1.1 of the C-102 Series TWRWP, RPP-22395, Rev. 3, as approved by Ecology. Energy shall provide a copy of the waste compatibility assessment report to the EPA contacts listed in Phase I approval Condition 6 no less than thirty (30) days prior to the start of retrieval activities covered by this approval, or at such other time as EPA may approve of in writing and in advance. Electronic mail communication is acceptable for this notification.

4. No later than the start of retrieval activities for each C-102 Series tank, Energy shall submit to EPA a post-retrieval Data Quality Objective (DQO) report and a sampling and analysis plan (SAP) for post-retrieval characterization and residual PCB remediation waste sampling. These plans may be based in whole or part on closure requirements pursuant to Washington Administrative Code 173-303-610. Energy shall ensure that the DQO report and the sampling and analysis plan provide for generation of data characterizing residual PCB remediation waste adequate for purposes of evaluating the risk of injury to human health and the environment from residual PCB remediation waste, and for evaluation of appropriate removal, decontamination or disposal actions for such residual PCB remediation waste. This plan shall be based on and consistent with the requirements of TPA Appendix I Section 2.1.6 requirements.

5. Within 120 days following completion of retrieval activities covered by this approval, or other such time corresponding to a submission date approved by Ecology through applicable TPA administrative processes with respect to requirements of TPA Appendix I Section 2.1.7, Energy shall submit to EPA either a retrieval data report pursuant to the approved DQO/sampling and analysis plan required by Phase II Condition 4 above, or a TPA Appendix H request for exception. This report shall include the information required by TPA Appendix I Section 2.1.7. This report shall specifically include results reasonably available at the time of submission from the High-Resolution Resistivity (HRR) demonstration(s) described in Section 4.2.1.3 of the C-102 Series TWRWP Rev. 3 as approved by Ecology.

6. Within 120 days following completion of retrieval activities covered by this approval, or other such time corresponding to a submission date approved by Ecology through applicable TPA administrative processes with respect to requirements of TPA Appendix I

Section 2.2.1, Energy shall submit plans and schedules for removal, decontamination or disposal of post-retrieval residual PCB remediation waste. These plans and schedules may be based upon and consistent with component closure activity plans for C-102 Series tanks required by WAC 173-303-610, and TPA Appendix I Section 2.2.1. If component closure activity plans are used in whole or part as the basis for post-retrieval management of residual PCB remediation waste, Energy shall ensure that total PCBs, measured as the sum of Aroclors, are identified as constituents of concern in the component closure activity plans. For retrieval equipment within the scope of Phase II Condition 1 that may be used for subsequent SST retrievals requiring approval under 40 CFR 761.61(c), Energy may submit documentation of the proposed reuse in lieu of the otherwise-required plans and schedules. These plans and schedules shall comprehensively address all aspects of residual PCB remediation waste management related to activities covered by this authorization, specifically including but not limited to in-tank residuals in the C-102 Series tanks, any spills, releases or leaks from C-102 Series tanks during retrieval, residuals in equipment within the scope of Phase II Condition 1 and any related spills or releases. Energy may also request from EPA written approval of alternate submission schedules as necessary to ensure integration of these submissions with permit modification requests and component closure activity plans required by the Washington State Department of Ecology pursuant to TPA milestone M-45-15.

7. Energy shall maintain and operate a baseline (drywell monitoring) and supplemental (modified static liquid level monitoring/waste material balance) leak detection, monitoring and mitigation (LDMM) system as documented in Section 4.0 of the C-102 Series TWRWP, RPP-22393, Rev. 3 as approved by Ecology. With respect to this system, Energy shall maintain and conduct retrieval operations pursuant to procedures consistent with Sections 4.2.1 and 4.6 of the C-102 Series TWRWP, including but not limited to high-resolution resistivity (HRR) LDMM deployment documented in Section 4.2.1.3.

8. Energy may request changes to schedules specified in these C-102 Series Phase II conditions. Such requests shall be in writing, including justification for the requested modifications, and submitted to the EPA contacts listed in Phase I Condition 6. Prior to written approval of the requested change, Energy shall comply with the existing conditions of this approval.

9. Energy shall submit to the EPA contacts listed in Phase I approval Condition 6 the final report of any high-resolution resistivity (HRR) leak detection test(s) which may be conducted at any or all C-102 Series tanks pursuant to the C-102 TWRWP RPP-22393, Rev. 3, Section 4.2.1 as approved by Ecology and any Ecology-approved test plans as may be applicable. This submission shall be concurrent with submission of the report, if any, to Ecology.

Should you have any questions or comments, please contact Dave Bartus at (509) 372-7938, or Bartus.dave@epa.gov.

Sincerely,

Michael A. Bussell, Director
Office of Compliance and Enforcement

Enclosures (3)

cc: Jane Hedges, Washington State Department of Ecology
Mary Beth Burandt, Department of Energy – Office of River Protection
Moses Jarayssi, CH2M Hill Hanford Inc.
Phil Miller, CH2M Hill Hanford Inc. Inc.